index 2005

Subject

14–19 Curriculum and qualifications reform, 2C
6,6′-dibromoindigo, dyestuff, 16

Accum, Frederick, 46
Aimhigher, outreach initiative, 60C, 114C, 146C
A-level experiment, functional group determination, 156
Alkaloids, plant defence chemicals, 156
Alkanes, isomers formula, 10L
Anaesthetics, 19th century, 133
Analgesics, antipyretics, 102
Analytical chemistry, 96
Analytical chemistry, teaching of, 39
Antibacterial compounds 157
Applied Science, GCSE, 28
Astrochemistry, 70, 153
Atomic force microscopy, 100
AutoNom, structure-naming software, 149L
Azo dyes, 61C, 91C

Bacteria, biosynthesis of plastics, 128
Bellamy, Ian, Salters' Chemistry Teacher, 4C
Bichloride of methylene, anaesthetic, 133
Bologna Process, 115C
Book reviews
  Chemistry calculations, GCSE/A-level, 55
  Chemistry of everyday products, 139
  Chemistry practicals, general, 55
  Chemistry, A-level, 83, 111, 138
  Environmental science, undergraduate, 83
  Forensic science, undergraduate, 111, 138
  Group Theory, undergraduate, 139
  History of chemistry, 27
  Humphry Davy, general, 83
  Maths for chemistry, undergraduate, 27
  Medicinal chemistry, general, 139
  Organic chemistry, undergraduate, 111, 166
  Physical chemistry, undergraduate, 138
  Quantum mechanics, undergraduate, 166
  React!, board game, 166
  Science, KS3, 27, 55, 111, 138 166
  Secondary science, teaching of, 27
  Transition metal chemistry, 55
Bristol University, CETL, 31C
Brown, Angela, Salters' Chemistry Teacher, 4C

Calcium oxide–water reaction, demonstration, 123, 149L
Carbon nanotubes, properties of, 100
Centres for Excellence in Teaching and Learning (CETLs), 31C, 114C
CFCs, 124
Chemical concepts, 147C
Chemical literacy, 20, 56, 84, 65L
Chemical vapour deposition, 75
Chemistry curriculum, 20, 56, 84, 65L, 94L
Chemistry demonstrations, 11, 38, 67, 95, 123, 150
Chemistry formatter software, 65L, 94L
Chemistry Olympiad, 115C, 162
Chemistry trails, 8C, 63C, 119C
Chemistry: the next generation, outreach initiative, 60C, 114C, 146C
Chemlingo, 35C, 92C
Chirality, 9L, 37L, 66L
Chromatography, 41
Chromium complexes, demonstration, 67
Ciechanover, Aaron, Nobel prizewinner, 6C
Coal tar, 102
Coblentz, William, 50
Colloid chemistry, dialysis, 160
Communicating chemistry, 94L
Composite materials, self-healing, 130
Contraceptives, chemistry of, 71
Cotton, Simon, RSC schools education award winner, 116C
Crossed-linked polymers, demonstration, 11
Curcumin, soundbite, 146C
Cyclisation reactions, stereochemistry of, 78

Dicyclopentadiene, self-healing polymer, 130
Diffusion of gases, Graham's law, 159
Distillates, chemical education, 26, 82, 137
Distillates, chemistry, 54, 110, 165
Drugs in sport, 9L
DVD manufacture, 42

Education reforms, 14–19 curriculum, 2C
Exhibition chemistry, demonstrations, 11, 38, 67, 95, 123, 150

Flu, drugs for, 89C
Food adulteration, 48
Forensic science in HE, SEMTA report, 5C
Free radical chemistry, 70, 125

GCSE Science, changes for 2006, 3C, 59C, 87C, 144C
Geometric isomerism, 37L
Glass, functional coatings for, 75
Glyphosphate, soundbite, 34C
Gold, extraction of, 164
Graham, Thomas, 159
Green chemistry, plastics production, 128
Grubbs' catalyst, 130

Harrison, Tim, RSC schools education award winner, 116C
Hassall, Arthur Hill, 48
HE chemistry, provision of, 3C, 30C, 58C, 59C, 114C, 142C
HEFCE, Aimhigher project, 60C, 114C, 146C
HEFCE, Centres for Excellence in Teaching and Learning, 31C
HEFCE, HE chemistry funding, 30C, 142C
HEFCE, Research Assessment Exercise, 86C
HEFCE, Roberts' report on subject provision in HE, 114C, 142C
Hershko, Avram, Nobel prizewinner, 6C
History of chemistry, anaesthetics, 133
History of chemistry, dyes, 16
History of chemistry, food safety, 46
History of chemistry, infrared spectroscopy, 50
History of chemistry, paracetamol, 102
History of chemistry, petrol additives, 159
History of chemistry, Thomas Graham, 159
History of chemistry, Woodward–Hoffmann theory, 78
Hormones, birth control, 73
Hydrogen economy, 112, 122L

ICT, resources for chemistry, 65L
Indigo, isomers, 37L
Infochem
  Anti-inflammatory drugs, no 96
  Arthritis, no 96
  Artificial bone, no 92
  Biomaterials, no 92
  Cannabis, psychotic effects, no 95
  Chromophores, applications of, no 94
  Crystallography, no 91
  Ethene, growth promoter, no 96
  Lithium, discovery of, no 94
  Luminescence, no 94
  Polyethene, discovery of, no 91
  Polymer chemistry, no 92
  Radiopharmaceutical imaging, no 93
  Raman spectroscopy, no 94
  Schizophrenia, no 95
  Sweeteners, discovery of, no 92
  Technetium-99m, radioisotope, no 93
Infrared spectroscopy, 50
Interstellar molecular species, 153
Ionic liquids, 12
Iron, complexes of, 119C
i-Science, undergraduate degree, 106

Jacob, Claus, RSC HE award winner, 116C
Jovanovic-Callaghan, Natasha, Salters' Chemistry Teacher, 4C

Key Stage 4 Science, programme of study, 9L, 144C

Lerman, Zafra, RSC Nyholm lecturer, 88C

Marsden, Sharon, Salters' Chemistry Teacher, 4C
Materials chemistry, self-repair, 130
Mathematics skills for HE chemistry, 4C
Medicinal compounds, 33C, 89C, 145C
Meteorites, chemical analysis of, 69
Mifepristone, abortifacient, 74
Miller–Urey hypothesis, origin of life, 22

Nanomaterials, applications of, 99
National Teaching Fellowship Scheme, 32C
Natural products, 156
Nobel prize, chemistry, 6C
Nottingham Trent University, CETL, 31C

Organometallic chemistry, tetraethyl lead, 159
Origin of life, 21, 68
Outreach activities, 60C, 146C
OUTV guide, 25
Ozone, catalytic destruction of, 125

Para red, azo dye, 91C
Paracetamol, mode of action, 102
Pasteur, Louis, 65L
Periodic Table, 9L, 65L, 135
Peroxydisulphate–iodide clock reaction, demonstration, 150
pH, 149L
Phenylglycine, enanitomers of, 163
Phosphorus, role in origin of life, 69
Plastics, biodegradable, 128
Plastics, self-healing, 130
Poly(hyrdoxyalkanoate) copolymers, biosynthesis of, 128
Polymer chemistry, 71, 128, 130
Pramipexole, medicinal compound, 145C
Product review, 7C
Provision of strategically important and vulnerable subjects, select committee inquiry, 30C, 58C, 114C, 142C
Public analyst, 49
PVA–borax reaction, demonstration, 11

Radioactivity, 8C
Research Assessment Exercise, 86C
Ramsay, William, 33C
Redox reactions, demonstration, 38
Refrigerants, properties of, 124
Ring closure reactions, stereochemistry of, 78
Ring opening metathesis polymerisation, 130
RNA, origin of life, 24
Roberts' report, 59C, 114C, 142C
Rohypnol, synthesis of, 162
Rose, Irwin, Nobel prizewinner, 6C
RSC, Chemistry Olympiad, 115C, 162
RSC, *Chemistry: the next generation*, 60C, 114C, 146C
RSC, HE teaching awards, 116C
RSC, *Kitchen chemistry*, 87C
RSC, National Historic Chemical Landmark, 3C, 33C
RSC, Nyholm lecturer, 88C
RSC, Parliamentary Links Day, 117C
RSC, Schools Education Awards, 116C
RSC, Top of the Bench winner, 87C

Salters' Chemistry Teaching Awards, 4C
Sc1 investigations, research-based approach, 168
Scanning tunnelling microscopy, 100
School demonstration, polarimetry, 14, 65L
School experiment, ionic liquids, 13
School inspection, revised framework, 118C
ScotCHEM, HE research partnership, 144C
Shallcross, Dudley, RSC HE award winner, 32C, 116C
Shower cleaners, formulation of, 7C
Solvents, green alternatives, 12
Soundbite molecules, 5C, 34C, 61C, 91C, 120C, 146C
Spectroscopic techniques, 39, 50, 96
Star cycle, 154
Statins, medicinal compounds, 33C
Steel, Science on Stage production, 62C
Stereoisomerism, 14
Stoichiometry, teaching of, 108, 122
Stradivarius violins, chemical analysis of, 96
Strategical provision of HE chemistry in England, 30, 58C, 114C, 142C
Sudan 1, soundbite, 61C
Surface chemistry, reactions in space, 154

Teaching chemistry, contexts, 108
Teaching science, KS3 investigations, 168
Teaching science, problem-based learning in HE, 106
Tetraethyl lead, petrol additive, 159
Tetrahedral angle, calculation of, 66L
Thermodynamics, students' misconceptions, 147C
Thin-film coatings, applications on glass, 76
Titania, coating for glass, 76
Titanium nanoparticles, applications of, 101
Traffic light reaction, demonstration, 95
Trans-2-hexenal, plant antibacterial, 157
Tyrian purple, dyestuff, 16

Ubiquitin, cell death marker, 6C
Undergraduate experiment, 6,6′-dibromoindigo, 18
University College London, National Historic Chemical Landmark, 33C
UV-cured adhesives, 44

Vioxx, soundbite, 5C
Vitamin B_{12}, synthesis of, 79
Vocational qualifications, 28
Web watch, 10, 53, 64C, 109, 121C, 164
Wilson, Elaine, NTFS fellow, 32C
Wilson, Lorelly, RSC schools education award winner, 116C
Winnington Research Laboratory, National Historic Chemical Landmark, 3C

Zinc, soundbite, 120C

Key

C – Column, L – Letter to the editor

Authors

Abbott, A., 12
Adetunji, J., 50
Ahmed, I., 78
Almond, M., 39
Atkins, P., 20
Atkinson, S., 39
Ault, A., 66L

Badger, P., 10L
Baker, C., 11, 38, 67, 95, 123, 150
Berry, M., 122L
Best, P.H., 122L
Birkett, D., 42
Borrows, P., 8C, 63C, 65L, 119C
Bouilliot, F., 68
Bradley, D., 6C, 54, 110, 165
Breuer, P., 65L
Brown, G., 21
Brown, T. M., 78, 102
Brown, W. A., 153
Bye, R., 149L

Chamberlain, J., 37L
Childs, P.E., 35C, 92C
Clinton, S., 65L
Coley, N., 46
Cooksey, C. J., 16, 37L, 91C, 149L, 159
Cotton, S., 5C, 34C, 37L, 61C, 91C, 120C, 146C, 156

Davies, D., 12
Dickson, N. J., 9L, 66L
Dronsfield, A. T., 9L, 16, 37L, 50, 78, 91C, 102, 133, 159

Edmonds, J., 16
Ellis, P.M., 102
Emsley, J., 7C
Erduran, S., 84, 94L

Flood, W., 10, 53, 64C, 109, 112, 121C, 164

Gadd, K., 28
Garrett, J., 9L
Gibson, P., 65L
Giomini, C., 51, 121L

Hargreaves, T., 71
Hill, M., 133
Holman, J., 56
Hubbard, A., 37L, 65L

Kauffman, G. B., 151
Kee, T. P., 68
Kind, V., 147C
King, C., 94L

Mann, J., 33C, 89C, 145C
Marks, A. J., 68
Marshall, L., 39
McCoustra, M. R. S., 153
Moore, J. S., 130
Morris, P., 50

Nagvary, J., 96
Nelson, P. G., 94L
Nicholson, J. W., 18
Nedia, I., 128

Osborne, C., 9L, 138

Palgrave, R. G., 75
Parkin, I. P., 75
Parkinson, J., 26, 82, 137
Pinto, G., 108
Poliakoff, M., 128
Pring, J., 133

Rest, A. J., 122L
Richardson, I., 118C
Rule, J. D., 130

Scerri, E. R., 135
Sottos, N. R., 130
Stephenson, K., 87C, 138, 162
Swain, P.A., 66L

Tang, S. L. Y., 128
Ten Hoor, M. J., 10L, 122L
Tingle, M., 149L
Tierney, J., 9L
Tunnell, R., 99
Turner, M., 94L

Viti, S., 153

Walker, S., 168
White, S. R., 130
Winfield, J. M., 124
Woodward, J. R., 14, 106